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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,680	07/20/2001	James B. Schrempp	AMC-005	2531

28661 7590 08/08/2006
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EXAMINER

PATEL, DHAIRYA A

ART UNIT PAPER NUMBER

2151

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,680

Applicant(s)

SCHREMPF ET AL.

Examiner

Dhairya A. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-29, 31-35 and 37-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-29, 31-35 and 37-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to Request for Continuation (RCE) filed on 7/27/2006.
2. Claims 1-4,6-29,31-35,37-59 is presented for examination. Claims 5,30,36 are cancelled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4,6-8,11-13,16-19,22-23,26,31-34,37-39,42-44,47-50,52-55,58,59,are rejected under 35 U.S.C. 102(b) as being anticipated by Lert Jr. et al. U.S. Patent # 4,230,990 (hereinafter Lert1).

As per claim 1, Lert1 teaches a play list generation system comprising:

-at least one analysis module (Fig. 1 element 26) for receiving signals (broadcast signals) that includes of data wherein said data includes an arbitrary portion of data of an unknown work (cue signals of broadcast program)(column 10 lines 10-20), analyzing (extracting) said data, generating (deriving) a representation (broadcast signature) of said data including said arbitrary portion of data of said unknown work (unknown program identity)(column 10 lines 15-23), and transmitting said representation over a network to an identification server (central computer) (column 10 lines 26-32);

The reference teaches field monitor (analysis module)(Fig. 1 element 26) receiving the broadcast signal (receiving signals), which contains cue signals of

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broadcast program (arbitrary portion of data of an unknown work), then extracting process (analyzing) to derive (generating) broadcast signature (representation) of unknown program identity (data of said unknown work). The reference also teaches transmitting the broadcast program signatures (representation) by means of telecommunications link (over a network) to the central computer (ID server). It is inherent that broadcast signals which contains cue signals of broadcast program contains arbitrary part of signals because a whole signal contains an arbitrary portion of signal therefore it is inherent that signals contain an arbitrary portion. It is also inherent that broadcast signature (representation of data) includes an representation of arbitrary portion because since the representation is created from the whole signal (data), arbitrary portion is covered because a representation of the whole signal is made therefore a representation of arbitrary portion of data is inherently made.

-at least one identification (ID) server (Fig. 1 element 28)(central computer) for receiving said representation over said network (telecommunication link) from said at least one analysis module (field monitor) and determining the identity of said unknown work from said representation (column 10 lines 26-32, lines 38-44).

The reference teaches central computer (ID server) receiving the broadcast signals (representations) by means of telecommunications link (over said network) from the field monitor (analysis module) and using the broadcast signatures and comparing them with reference signatures to determine the identity of the broadcast program (unknown) from the broadcast signatures (from representations).

As per claim 2, Lert1 teaches the system of claim 1, wherein said at least one analysis module (Fig. 1 element 26) further includes an input port (Fig. 1 element 226) configured to receive said signals from a network source (Fig. 1 element 20) (column 10 lines 10-17).

The reference teaches field monitor (Fig. 1 element 26) (analysis module) has an input port because the broadcast signal (Fig. 1 element 24) is going into field monitor, which receives the signals (Fig. 1 element 24) from a broadcasting station (Fig. 1 element 20) (network source).

As per claim 3, Lert1 teaches the system of claim 1, wherein said at least one analysis module further includes an input port configured to receive said signals from broadcast source (Fig. 1 element 20) (column 10 lines 10-17).

The reference teaches field monitor (Fig. 1 element 26) (analysis module) has an input port because the broadcast signal (Fig. 1 element 24) is going into field monitor, which receives the signals (Fig. 1 element 24) from a broadcasting station (Fig. 1 element 20) (broadcast source).

As per claim 4, Lert1 teaches the system of claim 1, wherein said at least one analysis module further includes an input port configured to receive said data in the form of a pre-broadcast digital form (column 10 lines 10-25)

The reference teaches the previously recorded program on the video will be broadcasted (pre-broadcast digital form) and is sent to the field monitor (analysis module) through the input port.

As per claim 6, Lert1 teaches the system of claim 1, wherein said network comprises the Internet (Fig. 2 element 68,27)(Fig. 1 element 26,27,28).

The reference teaches the field monitor comprising a modem with a telecommunications link to the central computer therefore it is inherent that the ID server and analysis module are coupled to internet because the generally a modem is used to connect to the Internet.

As per claim 7, Lert1 teaches the system of claim 1, wherein said representation comprises feature vectors (column 12 lines 65-68)(column 13 lines 1-12)

The reference teaches the representation of the program comprises 4 32-point feature vectors.

As per claim 8, Lert1 teaches the system of claim 1, wherein the representation comprises a spectral representation of said data (column 12 lines 41-51).

The reference teaches the audio portion of the program signal is used and the spectral representation of the audio signal of the program is made.

As per claim 11, Lert1 teaches the system of claim 1, wherein said representation comprises a bit calculated key (column 15 lines 25-51).

As per claim 12, Lert1 teaches the system of claim 1, wherein said ID server is configured to identify said unknown work using feature vectors (column 12 lines 65-68)(column 13 lines 1-12).

The reference teaches minicomputer inside the central computer identify the unknown work by forming a feature set and then using that to form 4 32-point feature vectors.

As per claim 13, Lert1 teaches the system of claim 1, wherein said representation includes a spectral representation of said ID server is configured to identify said unknown work using said spectral representation of said unknown work (column 15 lines 25-64).

The reference teaches audio signal having spectral representation and computer (ID server) receiving the audio signal for detection (identify) using spectral representation.

As per claim 16, Lert1 teaches the system of claim 1., wherein said ID server is configured to identify said unknown work using a bit calculated key (column 15 lines 25-51)

As per claim 17, Lert1 teaches the system of claim 1 , wherein said at least one analysis modules are further configured to receive a plurality of streaming sources (Fig.1 element 20) for analysis at a single location (Fig. 1 element 28)(column 10 lines 10-32)

The reference teaches broadcasting station (Fig. 1 element 20) and is received at central computer after it has passed through field monitor.

As per claim 18, Lert1 teaches the system of claim 1 , at least one analysis module is further configured to receive a plurality of streaming sources for analysis a plurality of different access points of the network (Fig. 1 element 26 on the right hand side) (column 11 lines 18-36)(column 11 lines 61-65).

The reference teaches broadcasting station (Fig. 1 element 20) and is received at a second field monitor and then to the central computer. The second field monitor also creates program signatures then passes to the central computer.

As per claim 19, Lert1 teaches the system of claim 1, wherein said at least one analysis module is configured to provide said representations to said at least one ID server at a predetermined time interval (column 25 lines 3-17, lines 22-31)

As per claim 22, Lert1 teaches the system of claim 19, wherein said at least one analysis module is configured to provide said representation to said at least one ID server responsive to receiving said signals and generating said representation (column 10 lines 10-33)

The reference teaches sending' the broadcast signatures to the central computer (ID server) from the field monitor (analysis module) after the field monitor receives signals from the broadcasting station and then creating signatures (representation) and sending it to the ID server.

As per claim 23, Lert1 teaches the system of claim 19, wherein said at least one analysis module is configured to provide said representations to said at least one ID server based on an out-of-band event (column 10 lines 13-32).

The reference when the cue is detected in the signal (out-of band event) in the field monitor (analysis module) the representation is provided.

As per claim 26, Lert1 teaches the system of claim 1, wherein said at least one ID server is further configured to provide an identification of said unknown work back to said at least one analysis module that transmitted said representation (column 11 lines

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18-50)

As per claim 31, Lert1 teaches a method for automatically generating a playlist comprising:

-receiving, by at least one analysis module, data including an arbitrary portion of data of an unknown work (column 10 lines10-20),

The reference teaches field monitor (analysis module)(Fig. 1 element 26) receiving the broadcast signal (receiving signals), which contains cue signals of broadcast program (arbitrary portion data of an unknown work). It is inherent that broadcast signals which contains cue signals of broadcast program contains arbitrary part of signals because a whole signal contains an arbitrary portion of signal therefore it is inherent that signals contain an arbitrary portion.

-generating, by said at least one analysis module, a representation of said data including said arbitrary portion of data of said unknown work (column 10 lines 26-32) and;

The reference teaches field monitor (analysis module)(Fig. 1 element 26) receiving the broadcast signal (receiving signals), which contains cue signals of broadcast program (data of an unknown work), and extracting process (analyzing) to derive (generating) broadcast signature (representation) of unknown program identity (data of said unknown work). The reference also teaches transmitting the broadcast program signatures (representation) by means of telecommunications link (over a network) to the central computer (ID server). It is inherent that broadcast signature (representation of data) includes an representation of arbitrary portion because since

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the representation is created from the whole signal (data), arbitrary portion is covered because a representation of the whole signal is made therefore a representation of arbitrary portion of data is inherently made.

-sending, by said at least one analysis module, said representation to at least one identification server over a network (column 10 lines 38-44)(Fig. 2 element 27,68)

The reference also teaches transmitting the broadcast program signatures (representation) by means of telecommunications link (over a network) to the central computer (ID server).

As per claim 32, Lert1 teaches the method of claim 31, further comprising the act of identifying, by said identification server, said unknown work based upon said representation (column 10 Lines 26-38)(column 10 Lines 48-64)

The reference teaches central computer receiving the broad program signatures (representation) and identifying them by using the signature and comparing it with the reference signatures.

As per claim 33, Lert1 teaches the method of claim 32, further comprising the act of storing said identification in a playlist database (column 11 Lines 23-36)

The reference teaches storing the identifications in the central computer memory (database).

As per claim 34, Lert1 teaches the method of claim 32, further comprising the act of sending, by said identification server, said identification to said at least one analysis module (column 11 Lines 18-50).

As per claim 37, Lert1 teaches the method of claim 31, wherein said network is

internet (column 10 lines 26-32)(Fig. 2 element 68, 27)

The reference teaches field monitor sending the program signatures to the central computer through the telecommunication link and using the modem, which is inherent since a modem is used and the program signatures are going through the telecommunication link that the network is Internet.

As per claim 38, Lert1 teaches the method of claim 31, wherein said act of generating said representation comprises generating feature vectors of said data(Column 12 lines 65-67)(Column 13 lines 1-12).

The reference teaches the generating representation of the program comprises generating 4 32-point feature vectors (feature vectors).

As per claim 39, Lert1 teaches the method of claim 31, wherein said act of generating said representation comprises a spectral representation of said data (column 12 lines.41-51).

The reference teaches the audio portion of the program signal is used and the spectral representation of the audio signal of the program is generated.

As per claim 42, Lert1 teaches the method of claim 31, wherein said representation comprises a bit calculated key of unknown work (column 15 lines 25-51).

As per claim 43, Lert1 teaches the method of claim 32, wherein said act of identifying is performed using feature vectors in said representation. (Column 12 Lines 65-67)(Column 13 Lines 1-12).

The reference teaches the representation of the program comprises 4 32-point feature vectors (feature vectors).

As per claim 44, Lert1 teaches the method of claim 32, wherein said act of identifying is performed using a spectral representation of said data (column 12 Lines 41-51).

The reference teaches the audio portion of the program signal is used and the spectral representation of the audio signal of the program is made.

As per claim 47, Lert1 teaches the method of claim 31, wherein said act of identifying is performed using bit-calculated key of the data (column 15 Lines 25-51).

As per claim 48, Lert1 teaches the method of claim 1 wherein said act of receiving, by at least one analysis module, data includes receiving a plurality of streaming sources (Fig. 1 element 20) for analysis at a single location (Fig. 1 element 28) (column 10 lines 10-32)

The reference teaches broadcasting station (Fig. 1 element 20) and is received at central computer after it has passed through field monitor.

As per claim 49, Lert1 teaches the method of claim 31, wherein said act of receiving, by at least one analysis module, said data includes receiving a plurality of streaming sources for analysis at different access points of the network (Fig. 1 element 26 on the right hand side) (column 11 lines 18-36)(column 11 lines 61-65).

The reference teaches broadcasting station (Fig. 1 element 20) and is received at a second field monitor and then to the central computer. The second field monitor also creates program signatures then passes to the central computer.

As per claim 50, Lert1 teaches the method of claim 31, wherein said act of

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sending, by said at least one analysis module, said representation to at least one identification server is performed responsive to generating said representation (column 10 lines 10-33)

The reference teaches sending the broadcast signatures to the central computer (ID server) from the field monitor (analysis module) after the field monitor receives signals from the broadcasting station and then creating signatures (representation) and sending it to the ID server.

As per claim 52, Lert1 teaches a playlist generation system comprising:

-means for receiving data including an arbitrary portion of data for an unknown work over a network (column 10 Lines 10-20) (Fig. 2 element 27,68,50)

The reference also teaches receiving the broadcast program signatures (representation) of the broadcast program and program identity (data include data or unknown work) by means of telecommunications link (over a network) at the central computer (ID server). It is inherent that broadcast signals which contains cue signals of broadcast program contains arbitrary part of signals because a whole signal contains an arbitrary portion of signal therefore it is inherent that signals contain an arbitrary portion.

-means for generating a representation of data including said arbitrary portion of data of said unknown work (column 10 lines 15-32), and

The reference teaches deriving (generating) broadcast signature (representation) of unknown program identity (data of said unknown work). It is also inherent that broadcast signature (representation of data) includes an representation of arbitrary portion because since the representation is created from the whole signal (data),

arbitrary portion is covered because a representation of the whole signal is made therefore a representation of arbitrary portion of data is inherently made.

-means for sending said representation to at least one identification server over a network (column 10 Lines 38-44).

The reference also teaches sending the broadcast program signatures (representation) of the broadcast program and program identity (data include data or unknown work) by means of telecommunications link (over a network) to the central computer (ID server)

As per claim 53,54, it teaches same as claims 32,33 respectively therefore rejected under same basis. .

As per claim 55, Lert1 teaches the system of claim 54, further including means for sending said identification from said at least one identification server to said at least one analysis module over said network (column 11 lines 18-50).

As per claim 58, Lert1 teaches the system of claim 52, further including means providing an identification of said unknown work back to the at least one analysis module responsive to identification of said work from said representation (column 11 lines 18-50).

As per claim 59, Lert1 teaches a playlist generation system comprising:

-means for receiving data including an arbitrary portion of data of an unknown work (column 10 lines 10-20).,

-means for generating a representation of said data including said arbitrary portion data of said unknown work (column 10 lines 26-32);

-means for sending said representation to at least one identification server over a network (column 10 lines 38-44)(Fig. 2 element 27,68) and

-means for sending an identification of said representation to at least one other computer system over said network (column 12 lines 2-20)(column 10 lines 38-44)

The reference teaches field monitor (analysis module)(Fig. 1 element 26) receiving the broadcast signal (receiving signals), which contains cue signals of broadcast program (data of an unknown work), then extracting process (analyzing) to derive (generating) broadcast signature (representation) of unknown program identity (data of said unknown work). The reference also teaches transmitting the broadcast program signatures (representation) by means of telecommunications link (over a network) to the central computer (ID server). It is inherent that broadcast signals which contains cue signals of broadcast program contains arbitrary part of signals because a whole signal contains an arbitrary portion of signal therefore it is inherent that signals contain an arbitrary portion. It is also inherent that broadcast signature (representation of data) includes an representation of arbitrary portion because since the representation is created from the whole signal (data), arbitrary portion is covered because a representation of the whole signal is made therefore a representation of arbitrary portion of data is inherently made.

4. Claims 20,21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lert1 in view of Aberson et al. U.S. Patent # 5,732,193 (hereinafter Aberson)

As per claim 20, Lert1 teaches the system of claim 19, but does not explicitly

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teach predetermined time interval comprises at least once a day. Aberson teaches predetermined time interval, which comprises at least once a day (column 7 lines 36-55). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to implement Aberson's teaching in Lert's system with providing representations at a predetermined time interval, which is at least once a day. The motivation for doing so would be in order to provide representations at an exact time interval at which the representation or analysis will be provided.

As per claim 21, Lert1 the system of claim 19, but does not explicitly teach said predetermined time interval comprises approximately once an hour. Aberson teaches a predetermined time interval, which comprises approximately once an hour (column 7 lines 36-55). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Aberson's teaching in Lert1's system with providing representations at a predetermined time interval, which is approximately once an hour. The motivation for doing so would be in order to provide representations at an exact time interval at which the representation will be provided.

5. Claims 24,25,27,28,51,56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lert1 in view of Chowdhury et al. U.S. Patent # 6,026,439 (hereinafter Chowdhury).

As per claim 24, Lert1 teaches the system of claim 1, identified works including said identification of said unknown work determined from said representation (column 11 lines 31-36) but fails to teach wherein said ID server is further configured to generate a playlist. Chowdhury teaches ID server is further configured to generate a playlist of

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identified works (column 3 lines 54-66). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Chowdhury's invention in Lert1's invention to come up with a server configured to generate a playlist, which has identification determined from representation. The motivation for doing so would have been because one can listen or watch the identified work in the playlist, which could be a song or a video continuously.

As per claim 25, Lert1 teaches the system of claim 1, wherein said ID server is configured to each said representation received from each at least one analysis module connected to the network responsive to identification of each said unknown work from each said representation (column 10 lines 10-33) but fails to teach, wherein said ID server is further configured to generate a playlist of identified works. Chowdhury teaches wherein said ID server is further configured to generate a playlist of identified works (column 3 lines 33-45)(column 3 lines 54-66). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Chowdhury's invention in Lert1's invention to come up with a server configured to generate a playlist of each representation received from the at least one analysis module connected to the network. The motivation for doing so would have been to generate a playlist a lot faster because the representations are received directly from the analysis module where the identified works will be coming from to create a playlist.

As per claim 27, Lert1 teaches the system of claim 18, to update identified works with an identification of said work of said representation responsive to identifying a representation (column 10 lines 10-33)(column 11 lines 31-36) but fails to teach update

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a playlist of identified works. Chowdhury teaches update a playlist of identified works (column 11 lines 18-27). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Chowdhury's invention in Lert's invention to come up with updating a playlist with identification responsive to identifying a representation. The motivation for doing so would have been to classify the identified work and put it into playlist so it would not go through the identification process again.

As per claim 28, Lert1 teaches the system of claim 27, wherein said at least one ID server is further configured to provide an identification of said unknown work back to said at least one analysis module that transmitted said representation responsive to identification of said unknown work from said representation (column 11 lines 18-50)

As per claim 51, Lert1 teaches a method for automatically generating a playlist comprising:

- receiving a representation of data including an arbitrary portion of data of an unknown work over a network (column 10 lines 10-20)(Fig. 2 element 27,68)

The reference also teaches receiving the broadcast program signatures (representation) of the broadcast program and program identity (data include data or unknown work) by means of telecommunications link (over a network) at the central computer (ID server). It is obvious that broadcast signals which contains cue signals of broadcast program contains arbitrary part of signals because a whole signal contains an arbitrary portion of signal therefore it is obvious that signals contain an arbitrary portion.

- identifying (determine identity) said unknown work (broadcast program) using said representation (broadcast signatures) (column 10 lines 26-32, lines 38-44).

The reference teaches using the broadcast signatures and comparing them with reference signatures to determine the identity of the broadcast program (unknown) from the broadcast signatures (from representations).

Lert1 fails to teach updating a playlist with an identification of said representation. Chowdhury teaches updating a playlist with an identification of said representation (column 11 lines 18-27). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement chowdhury's invention into Lert's invention to come up updating a playlist with identification. The motivation for doing so would have been to classify the identified work and put it into playlist so it would not go through the identification process again.

As per claim 56, it teaches same limitation as claim 25, therefore rejected under same basis.

As per claim 57, it teaches same limitations as claim 27, therefore rejected under same basis.

6. Claims 9,10,14,15,40,41,45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lert et al. in view of Lai et al. U.S. Patent # 6,006,183 (hereinafter Lai).

As per claim 9, Lert1 teaches the system of claim 1, but fails to teach the representation comprises the text output of a speech recognition system. Lai teaches representation comprises the text output of a speech recognition system (Column 4 lines 1-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Lai in the invention of Lert1 in order to come up

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with corresponding representation comprising text output. The motivation for doing so would have been to assign score to the words or text from the output. (Column 4 lines 1-11) .

As per claim 10, Lert1 teaches the system of claim 1, but fails to teach the representation comprises the musical score output of a music transcription system. Lai teaches representation comprises the musical score output of a music transcription system (Column 4 lines 1-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Lai in the invention of Lert in order to come up with corresponding representation comprising musical score output. The motivation for doing so would have been because score reflects the level of confidence of the translation of the corresponding representations. (Column 4 lines 1-25).

As per claim 14, Lert1 teaches the system of claim 1, but fails to teach ID server is configured to identify unknown work using the text output of a speech recognition system. Lai teaches ID server is configured to identify unknown work using the text output of a speech recognition system (Column 4 lines 1-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Lai in the invention of Lert in order to identify the unknown work using text output. The motivation for doing so would have been to assign score to the words or text from the output (column 4 lines 1-11).

As per claim 15, Lert1 teaches the system of claim 1, but fails to teach ID server is configured to identify unknown work using the musical score output of a music

transcription system. Lai teaches ID server is configured to identify unknown work using the musical score output of a music transcription system (column 4 lines 1-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Lai in the invention of Lert1 in order to identify the unknown work using musical score output. The motivation for doing so would have been because score reflects the level of confidence of the translation of the corresponding representations of the unknown work (Column 4 lines 1-25).

As per claim 40, Lert1 teaches the method of claim 31, but fails to teach wherein said act of generating said representation comprises the text output of said unknown work from a speech recognition system. Lai teaches generating representation comprises the text output of unknown work from a speech recognition system (Column 4 lines 1-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Lai in the invention of Lert1 in order to come up with corresponding representation comprising text output of the unknown work. The motivation for doing so would have been to assign score to the words or text from the output (column 4 lines 1-11).

As per claim 41, Lert1 teaches the system of claim 31, but fails to teach the representation comprises the musical score output of a music transcription system. Lai teaches representation comprises the musical score output of a music transcription system. (Column 4 lines 1-25). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Lai in the invention of Lert1 in order to come up with corresponding representation comprising musical score output.

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The motivation for doing so would have been because score reflects the level of confidence of the translation of the corresponding representations. (Column 4 lines 1-25),

As per claim 45, Lert1 teaches the method of claim 31, but fails to teach wherein said act of identifying is performed using the text output of said data from a speech recognition system. Lai teaches identifying is performed using the text output of data from a speech recognition system (Column 4 lines 1-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Lai in the invention of Lert1 in order to come up with identifying using text output of the unknown work from a speech recognition system. The motivation for doing so would have been to assign score to the words or text from the output (column 4 lines 1-11).

As per claim 46, Lert1 teaches the method of claim 32, but fails to teach wherein said act of identifying is performed using the musical score output of a music transcription system. Lai teaches identifying is performed using the musical score output of a music transcription system (column 4 lines 1-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Lai in the invention of Lert in order to come up with identifying using musical score output of a music transcription system. The motivation for doing so would have been because score reflects the level of confidence of the translation of the corresponding representations (Column 4 lines 1-25).

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lert1

and Chowdhury et al. as applied to claims 27, and further in view of Brouwer et al. U.S. Patent # 6,279,124 (hereinafter Brouwer).

As claim 29, Lert and Chowdhury teaches the system of claim 27, wherein said at least one analysis module is further configured to but does not explicitly teach. purge said representation responsive to said identification received. Brouwer teaches purging a representation responsive to said identification is received (column 30 lines 40-50). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to implement Brouwer invention in the invention of Lert1 and Chowdhury's invention to purge the representation. The motivation for doing so would have been to recover drive space or because it has been saved into back up media.

8. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lert1 in view of Brouwer et al. U.S. Patent # 6,279,124 (hereinafter Brouwer).

As per claim 35, Lert1 teaches the method of claim 34, further comprising the act purging, by said at least one analysis module, at least one file corresponding stored to said identification. Brouwer teaches the act purging, by said at least one analysis module, at least one file corresponding stored to said identification (column 30 lines 40-50). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Brouwer invention in the invention of Lert and Chowdhury to purge at least one file corresponding to the identification. The motivation for doing so would have been to recover drive space or because it has been saved into back up media.

Remarks

9. Examiner has fully considered all the applicant's remarks but did not find them persuasive.

10. As per remarks, Applicant stated:

A). Applicant states that Lert teach away from the present invention and does not teach "at least one analysis module for receiving signals that include data wherein said data includes an arbitrary portion of data for an unknown work, analyzing said data, generating a representation of said data including said arbitrary portion data of said unknown work, and transmitting said representation over a network to an identification server and at least one identification server for receiving said representation from said at least one analysis module and determining the identity of said work from said representation".

In response to applicants' arguments, the law of anticipation requires that a distinction be made between the invention described or taught and the invention claimed. It does not require that the reference "teach" what the subject patent teaches. Assuming that a reference is properly "prior art," it is only necessary that the claims under consideration "read on" something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or "fully met" by it. See **Colman v. Kimberly-Clark**

Examiner respectfully traverses the applicant's argument because Lert teaches at least one analysis module (Fig. 1 element 26) for receiving signals (broadcast signals) that include data wherein said data includes arbitrary portion of data of an

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unknown work (cue signals of broadcast program)(column 10 lines 10-20), analyzing (extracting) said data, generating (deriving) a representation (broadcast signature) of said data including said arbitrary portion data of said unknown work (unknown program identity)(column 10 lines 15-23), and transmitting said representation over a network to an identification server (central computer) (column 10 lines 26-32); at least one identification (ID) server (Fig. 1 element 28)(central computer) for receiving said representation over said network (telecommunication link) from said at least one analysis module (field monitor) and determining the identity of said unknown work from said representation (column 10 lines 26-32, lines 38-44).

Lert teaches field monitor (analysis module)(Fig. 1 element 26) receiving the broadcast signal (receiving signals), which contains cue signals of broadcast program (data of an unknown work), then extracting process (analyzing) to derive (generating) broadcast signature (representation) of unknown program identity (data of said unknown work).

Lert also teaches transmitting the broadcast program signatures (representation) by means of telecommunications link (over a network) to the central computer (ID server).

Lert also teaches central computer (ID server) receiving the broadcast signals (representations) by means of telecommunications link (over said network) from the field monitor (analysis module) and using the broadcast signatures and comparing them with reference signatures to determine the identity of the broadcast program (unknown) from the broadcast signatures (from representations). It is inherent that broadcast signals which contains cue signals of broadcast program contains arbitrary part of signals because a whole signal contains an arbitrary portion of signal therefore it is

inherent that signals contain an arbitrary portion. It is also inherent that broadcast signature (representation of data) includes an representation of arbitrary portion because since the representation is created from the whole signal (data), arbitrary portion is covered because a representation of the whole signal is made therefore a representation of arbitrary portion of data is inherently made.

B). As per claim 1, Applicant states present invention “generates a representation of the portion of data for the work received and can pattern match portions of the representation of the portion of the known works to determine identify of the identify of unknown work”. Examiner would like to point out that nowhere in the claim language does it say to “pattern match portions of the representation to determine the identity”. Instead in the claim it states “at least one identification server for receiving said representation from said at least one analysis module and determining the identity of said work from said representation” which has been addressed above.

C): As per claim 51, Applicant recites Lert does not teach “receiving a representation of data including an arbitrary portion of data of an unknown work over a network, identifying said unknown work using said representation, and updating a play list with an identification of said representation”. Examiner respectfully disagrees with the applicant because Lert teaches receiving a representation of data including data of an unknown work over a network (column 10 lines 10-20)(Fig. 2 element 27,68) identifying (determine identity) said unknown work (broadcast program) using said representation (broadcast signatures) (column 10 lines 26-32, lines 38-44)

The reference also teaches receiving the broadcast program signatures (representation) of the broadcast program and program identity (data include data or unknown work) by means of telecommunications link (over a network) at the central computer (ID server). The reference also teaches using the broadcast signatures and comparing them with reference signatures to determine the identity of the broadcast program (unknown) from the broadcast signatures (from representations). It is obvious that broadcast signals which contains cue signals of broadcast program contains arbitrary part of signals because a whole signal contains an arbitrary portion of signal therefore it is obvious that signals contain an arbitrary portion.

Lert1 fails to teach updating a playlist with an identification of said representation. Chowdhury teaches updating a playlist with an identification of said representation (column 11 lines 18-27). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement Chowdhury's invention into Lert's invention to come up updating a playlist with identification. The motivation for doing so would have been to classify the identified work and put it into playlist so it would not go through the identification process again.

D). As per claim 51, Applicant states present invention "generates a representation of the portion of data for the work received and can pattern match portions of the representation of portions of the known works to determine the identity of unknown work". Examiner would like to point out that nowhere in the claim language does it say to "pattern match portions of the representation to determine the identity". Instead in the claim it states "receiving a representation of data including of an unknown

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work over a network, identifying said unknown work using said representation" which has been address above.

Applicant also states that Lert does not teach "the generating of the representation of data". Examiner would like to point out that nowhere in the claim language does it say "the generating of the representation of data". Instead in the claim it states "receiving a representation of data including of an unknown work over a network, identifying said unknown work using said representation" which has been address above.

E) As per claim 31, Applicant states Lert does not disclose the step of generating the representation from the received data. Examiner respectfully disagrees with the applicant because in column 10 lines 26-32, Lert teaches field monitor (analysis module)(Fig. 1 element 26) receiving the broadcast signal (receiving signals), which contains cue signals of broadcast program (data of an unknown work), and extracting process (analyzing) to derive (generating) broadcast signature (representation) of unknown program identity (data of said unknown work). The reference also teaches transmitting the broadcast program signatures (representation) by means of telecommunications link (over a network) to the central computer (ID server). It is inherent that broadcast signature (representation of data) includes an representation of arbitrary portion because since the representation is created from the whole signal (data), arbitrary portion is covered because a representation of the whole signal is made therefore a representation of arbitrary portion of data is inherently made.

Applicant states same remarks for claim 31 as claim 1, therefore please refer to claim 1 remarks.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a). "Speech Recognition Confidence level display" U.S. Patent # 6,006,183 by Lai, Jennifer.
- b). "Method and system for testing hardware and/or software applications" U.S. Patent # 6,279,124 by Brouwer, Derek.
- c). "Broadcast program identification method and system" by Lert Jr. et al. U.S. Patent # 4,230,990.
- d). "File transfers using playlists" U.S. patent # 6,026,439 by Chowdhury, Shyamal.

12. A shortened statutory period for response to this action is set to expire **3 (three) Months and 0 (zero) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the applicant (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

13.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhairya A. Patel whose telephone number is 571-272-5809. The examiner can normally be reached on 8:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAP



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SUPERVISORY PATENT EXAMINER